

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) A microscope optical system comprising:

an objective lens; and

an intermediate magnification varying part disposed just after the image side of said objective lens.

2. (Original) A microscope optical system according to claim 1, wherein,

said intermediate magnification varying part includes a lens group having a positive refractive power and a lens group having a negative refractive power, and in a high magnification variation state, said lens group having a positive refractive power is disposed just after the image side of the objective lens, while in a low magnification variation state, said lens group having a negative refractive power is disposed just after the image side of the objective lens.

3. (Original) A microscope optical system according to claim 2, wherein said intermediate magnification

varying part is constructed in such a way that its optical system is rotatable with an axis substantially orthogonal to an optical axis being a rotation axis.

4. (Original) A microscope optical system according to claim 3, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

5. (Original) A microscope optical system according to claim 1, wherein said intermediate magnification varying part is constructed in such a way that its optical system is rotatable with an axis substantially orthogonal to an optical axis being a rotation axis.

6. (Original) A microscope optical system according to claim 1, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

7. (Original) A microscope optical system according to claim 2, wherein a magnification in said high magnification variation state is α and a magnification in said low magnification variation state is $1/\alpha$.

8. (Original) A microscope optical system according to claim 4, wherein said magnification α satisfies $1.25 \leq \alpha \leq 2.5$.

9. (Original) A microscope optical system according to claim 2, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

10. (Original) A microscope optical system according to claim 7, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

11. (Original) A microscope optical system according to claim 8, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

12. (Withdrawn) A microscope objective lens comprising, in the following order from the object side, a first lens group and a second lens group, wherein:

said first lens group includes a positive meniscus lens with the concave surface facing the object side and one or more cemented lenses, said first lens group having a positive refractive power as a whole;

at least one of said cemented lenses includes a lens made of a material having an Abbe's number equal to or larger than 80; and

the following conditions are satisfied:

$$0.3 \leq wd/f \leq 0.45$$

$$0.6 \leq NA$$

where, f represents the focal length of said microscope objective lens as a whole, wd represents the working distance of said microscope objective lens, and NA

represents the numerical aperture of said microscope objective lens.

13. (Withdrawn) A microscope objective lens according to claim 12, wherein said microscope objective lens has a magnification of 20x.

14. (Withdrawn) A microscope objective lens according to claim 13, wherein at least one of said cemented lenses comprises a cemented lens composed of three lens elements.

15. (Withdrawn) A microscope objective lens according to claim 14, wherein said lens made of a material having an Abbe's number equal to or larger than 80 is made of fluorite.

16. (Withdrawn) A microscope objective lens according to claim 12, wherein at least one of said cemented lenses comprises a cemented lens composed of three lens elements.

17. (Withdrawn) A microscope objective lens according to claim 16, wherein said lens made of a

material having an Abbe's number equal to or larger than 80 is made of fluorite.

18. (Withdrawn) A microscope objective lens according to claim 13, wherein said lens made of a material having an Abbe's number equal to or larger than 80 is made of fluorite.

19. (New) A microscope optical system according to claim 1, wherein:

said objective lens comprises, in the following order from the object side, a first lens group and a second lens group;

said first lens group includes a positive meniscus lens with the concave surface facing the object side and one or more cemented lenses, said first lens group having a positive refractive power as a whole;

at least one of said cemented lenses includes a lens made of a material having an Abbe's number equal to or larger than 80; and

the following conditions are satisfied:

$$0.3 \leq wd/f \leq 0.45$$

$$0.6 \leq NA$$

where, f represents the focal length of said microscope objective lens as a whole, wd represents the working distance of said microscope objective lens, and NA represents the numerical aperture of said microscope objective lens.